

REMARKS

Claims 68-107 are currently pending in this application.

Claims 51-67 stand rejected under 35 USC § 103 as being unpatentable over US Patent 5,406,634 to Anderson, US Patent No. 4,185,167 to Cunningham and US Patent Application No. 2003/0142833. The Examiner's comments have been carefully considered, however, the Examiner's rejections are respectfully traversed for the reasons as discussed below.

Claims 51-67 have been cancelled without prejudice or disclaimer to the subject matter contained therein. New apparatus claims 68-89, 95-107 and new method claims 90-94 have been added to better define embodiments of the present invention.

The Examiner contends that Cunningham teaches a communication network and a plurality of sound masking units, each having a sound masking signal generator, "communicatively connected" to one another via the communication network. The Examiner relies on Fig. 5 and column 6, line 26-37 for the teachings of a communication network and the connection of the sound masking units in the network. The Examiner acknowledges that Cunningham does not teach a sound masking signal generator that generates a sound masking signal based on a control signal received over the communication network. The Examiner also acknowledges that Cunningham does not teach a control unit configured to generate the control signals for the sound masking unit and send the control signals over the communication network.

The Examiner relies on Anderson as teaching an intelligent speaker unit for a speaker system network comprising a plurality of speaker units and a control unit configured to generate the control signals to selectively control operation of the plurality of speaker units and configured to send the control signals over the communication network in order to allow an operator to remotely control the plurality of speaker units. The Examiner maintains the intelligent speaker unit according to Anderson is the same as a sound masking unit.

The Examiner further relies on newly cited reference Roy as teaching a sound distributing masking sound, paging, and music throughout a space, wherein the paging system comprises various types of pages, such as microphone, telco, master page, and all mute, which according to the Examiner provides flexibility, controllability and sound quality. The Examiner contends that Roy teaches the paging deficiencies of Cunningham with respect to the present invention. Independent claims 68, 80, 85, 90, 95, 100 or 102 as presented do not recite a paging function.

The Examiner contends that Anderson teaches the deficiencies of Cunningham with respect to the claimed invention, and that therefore one skilled in the art would have applied these teachings to Cunningham. It is respectfully submitted that Anderson does not teach the deficiencies of Cunningham, and therefore there is no motivation for one skilled in the art to combine the references. Secondly, even if one skilled in the art were to combine the teachings of Anderson and Cunningham the resulting system is

not the same as that defined by claims 68-89, 95-107 or method claims 90-94.

Anderson teaches a paging/music system including intelligent speaker units 22 connected in a network with a control architecture (computer 10 and board 11) as shown in Figs. 1 and 2. The intelligent speaker units 22 do NOT include a sound masking generator component and therefore there is no mechanism for generating a sound masking signal. The intelligent speaker units 22 as disclosed and taught by Anderson are limited to receiving and outputting paging/music signals. In addition, Anderson provides NO teaching or suggestion of networking and controlling sound masking units.

As previously stated, paging/music systems and sounds masking systems are fundamentally different systems directed to solve fundamentally different problems. Paging/music systems are concerned with delivering intelligible sounds throughout a space. Sound masking systems, on the other hand, are concerned with suppressing, i.e. masking, unwanted sounds or ambient sounds in a physical space such as an office or workplace. Sound masking systems generate incoherent or unintelligible background sounds that serve to mask the unwanted intelligible sounds in the workplace. Because ambient sounds can vary from location to location in a workplace, the space may be divided into one or more zones, with each zone having a sound masking signal with a different masking level and/or frequency level, wherein the masking level or frequency level is tailored to the ambient sounds sought to be masked or suppressed.

The Examiner is also referred to Cunningham, at column 1, lines 14 to 23, which states as follows:

Such proposals have included ... the use of piped-in or canned music in an attempt to condition the environment to reject the unwanted sounds in the area occupied by the listener. However, music itself played continuously may become distracting to the listener or listeners over an extended period of time, particularly if the music is of a type which the listener may not find pleasing.

Cunningham clearly distinguishes between intelligible sounds, such as music, and unintelligible or incoherent sounds for masking unwanted sounds. Cunningham further emphasizes that intelligible sounds, such as music, are not suitable for sound masking and can disturb occupants over time. These teachings are entirely consistent with the state of the art as taught by Orfield (US Patent No. 5,406,634), which was cited in the prior Office action.

Cunningham provides no suggestion of networking and controlling sound masking units even though Cunningham was clearly aware of paging systems. As taught by Cunningham in column 3, lines 15-27 and shown in Fig. 2, the circuit 16 in the sound masking package M includes a pair of conductors 29 connected to a pair of external terminals 28. The external terminals 28 are connected by means of a pair of conductors 27 to a remote signal source such as "a musical transcription , a paging system or an emergency call system". Thus, Cunningham teaches away from a combination/modification as suggested by the Examiner.

In view of the fundamental differences between intelligible sounds, such as music and paging as taught by Anderson, and the unintelligible

sounds for sound masking as clearly taught by Cunningham and Orfield, there is no motivation or suggestion for one skilled to modify and combine Anderson with Cunningham.

It is further submitted that even if one skilled in art were to combine the teachings of Anderson and Cunningham (notwithstanding the lack of any motivation or suggestion in the art), the resulting system would not be the same as that recited by independent claims 68, 80, 85, 90, 95, 100 or 102.

With all due respect, Cunningham does not teach or disclose the arrangement as defined by independent claims 68, 80, 85, 90, 95, 100 or 102 of a communication network and a plurality of sounds masking units "communicatively connected" to a communication network as alleged by the Examiner at pages 2-3 of the Office Action. The Examiner relies on Fig. 5 and column 6, lines 26 to 37:

Wherein the masking packages is to be used in the area substantially larger than the typical office enclosure, a plurality of masking packages M may be connected together for simultaneous operation, such an arrangement for a plurality of masking packages being shown in Fig. 5. Adequate sound masking coverage is obtained when the masking packages M are spaced apart within the range of between 16 to 20 feet, the masking packages being interconnected by suitable conductors 111 and supplied with power through a junction box 112 suitably connected to a source of electric power by conductors 113.

Based on a careful reading of the passage relied on by the Examiner and the rest of the reference, there is no teaching or suggestion that the sound masking packages M have "a communication interface" and that the

conductors 111 referred to in Fig. 5 comprise a communication channel for transmitting or receiving a masking volume signal or a masking frequency signal as recited in the independent claims of the subject application. As taught by Cunningham, the conductors 111 interconnecting the plurality of sound masking packages M merely provide power. This limited functionality of the conductors 111 is further evidenced by a consideration of Fig. 2 and the circuit schematic of Fig. 3. As shown in Fig. 2, terminal pairs 34 are connected to respective conductors 33, which as shown in Fig. 3, provide a supply voltage input to a bridge circuit 43 in the DC power supply circuit for the sound masking package M. As such the conductors 111 merely provide a supply voltage. With all due respect, it is submitted that a conductor carrying a supply voltage is not a communication network. It is further noted that Cunningham does not teach or even suggest receiving a masking volume signal or a masking frequency signal over the conductor 111, and furthermore the circuit shown in Fig. 3 is not capable of generating a sound masking signal output in response to any control signals. It is further submitted that these deficiencies in Cunningham also make it impossible to implement the zoning functions according to other embodiments of the present invention as recited in the claims.

Anderson does not remedy these deficiencies. The intelligent speaker unit 22 as disclosed and taught by Anderson is limited to receiving and outputting paging/music signals. Anderson does not teach or suggest generating a masking volume signal or a masking frequency signal for a sound masking generator. Accordingly, if one skilled in the art were to

combine Anderson and Cunningham as suggested by the Examiner, the resulting system would still not include the capability to generate a sound masking volume signal and a sound masking frequency signal, which are transmitted over a network to control the volume and/or frequency of a sound masking signal generated locally at a sound masking unit coupled to the network.

Since Anderson and Cunningham, whether taken alone or in combination, do not disclose or teach all of the limitations as recited in independent claims 68, 80, 85, 90, 95, 100 and 102, it is submitted that the invention as recited is not obvious. Since the remaining claims depend either directly or indirectly from the associated independent claim, it is submitted that the dependent claims are also not obvious for similar reasons.

The Examiner acknowledges that Cunningham does not expressly disclose a number of the plurality of sound masking units that is different from a number of the plurality of sound masking zones. The Examiner takes Official Notice that it is well known to those skilled in the art to provide a number of the plurality of sound masking units that is different from a number of the plurality of sound masking zones in order to provide the desired configuration needed for different areas which produces a comfortable listening environment for people.

With all due respect, it is submitted that that the requirements for taking Official Notice have not been satisfied. MPEP Section 2144.03 sets

forth the procedures for relying on common knowledge or taking Official Notice. It finds not to be appropriate to take Official Notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. If Official Notice is taken of a fact, unsupported by documentary evidence, the technical line of reasoning underlying a decision to take such Notice must be clear and unmistakable. MPEP Section 2144.03(B). In conclusion, the MPEP states:

Furthermore, ...any facts so noticed should be of notorious character and serve only to "fill in the gaps" in an insubstantial manner which might exist in the evidentiary showing made by the examiner to support a particular ground of rejection. It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon a rejection is based. (citations omitted) (emphasis added)

MPEP 2144.03(E).

Should it be determined that the Official Notice taken satisfies the requirements of MPEP, it is submitted that the teaching of a plurality of sound masking units different from a number of a plurality of sound masking zones does not remedy the deficiencies of Cunningham.

CONCLUSION

It is respectfully submitted that the present amendments and remarks herein represent a complete response to all outstanding issues and that the subject application is in condition for allowance. Favorable consideration is respectfully requested.

Pursuant to 37 C.F.R. §§ 1.17 and 1.136(a), Applicant(s) hereby petition(s) for a three (3) months extension of time for filing a reply to the outstanding Office Action and submit the required \$1,020.00 extension fee herewith.

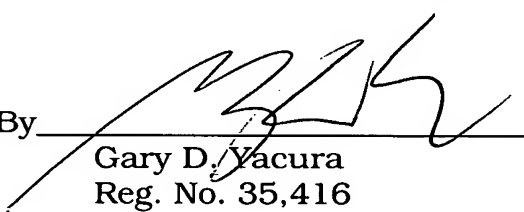
If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the telephone number listed below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Very truly yours,

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By



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